Examining the relationship between passion and perceptions of cohesion in athletes

Research Article

Examining the relationship between passion and perceptions of cohesion in athletes

Kyle Paradis, Luc Martin & Albert Carron

The purpose of the present study was to examine the relationship of harmonious and obsessive passion to perceptions of task and social cohesion in team sport athletes. Participants were 370 competitive (N=252) and recreational (N=118) athletes ranging from 18- to 28-years-old (M_{age}=20.20, SD=1.52) from a wide variety of team sports. Participants completed the Passion Scale (Vallerand et al., 2003) and the Group Environment Questionnaire (Carron et al., 1985). A MANOVA revealed that competitive athletes were more passionate and had higher perceptions of cohesion than did recreational athletes. Multiple regression analyses revealed a positive relationship between both harmonious and obsessive passion and both task (ATG-T, GI-T) and social (ATG-S, GI-S) cohesion. Theoretical and practical implications are discussed pertaining to the importance of harmonious and obsessive passion in athletes and perceptions of cohesion in competitive and recreational sport.

Keywords: *sport psychology; group dynamics; interdependent sport.*

A HUMAN'S PASSION for any given activity can be the driving force in the pursuit of an education or career path, the choices made concerning the use of free time, or even the reasons for living (Vallerand, 2008). For example, an academic might pursue research in a given area such as group dynamics because he/she has developed a passion for the topic. Traditionally, passion for any activity has been assumed to underlie the selection, direction, and intensity of behaviour. Historically, the concept of passion has been a major focus of interest in philosophy (Rony, 1990). However, not surprisingly, since passion is a theoretical construct, its conceptualisation and operationalisation are difficult. As a result, it received little research attention in psychology until recently.

Vallerand and his colleagues (e.g. Vallerand et al., 2003) have spearheaded research in this area and developed their own 'passion' for the study of the different types and amount of passion that individuals possess for the activities in which they partake. As a foundation for their work, their general definition described passion as a strong inclination towards an activity that people like (or even love), that they find important and value, and in which they invest time and energy (Vallerand & Houlfort, 2003; Vallerand & Miquelon, 2007). In addition, a dualistic model comprising of two dimensions of passion was proposed: harmonious and obsessive passion. Being harmoniously passionate refers to having a strong desire or motivational force to willingly engage in an activity that remains under personal control. On the other hand, being obsessively passionate refers to having a strong desire or motivational force that pushes one to engage in the activity that is not under the person's control (Vallerand et al., 2003; Vallerand & Miguelon, 2007). For example, an individual who cannot resist going on a training run despite being woefully unprepared for an exam the next day is likely manifesting obsessive passion.

Research has focused on the relationship between harmonious and obsessive passion with a number of cognitive and behavioural outcomes. Harmonious passion has been found to be positively related to general well-being (Mageau et al., 2005; Phillipe, Vallerand & Lavigne, 2009; Vallerand et al., 2003), as well as positive affect and positive experiences (Vallerand et al., 2006; Vallerand et al., 2008; Vallerand et al., 2007). On the other hand, obsessive passion is associated with negative affective experiences (Vallerand et al., 2008), conflicts in other life domains and impeded daily functioning (Vallerand et al., 2003), rigidity and inflexibility (Rip, Fortin & Vallerand, 2003), and increased negative emotions (Phillipe et al., 2010).

Passion, as defined and operationalised by Vallerand and his colleagues, is rooted in the theoretical background of *self-determination theory* (Deci & Ryan, 1985; 2000). One proposition of self-determination theory is that people are naturally inclined to assimilate and integrate in groups for external behavioural regulation in order to experience self-determination. However, it is thought that for the internalisation process to function optimally, people need to be in social environments that nurture the innate need for relatedness. In environments that are rejecting or not welcoming, the integration process is hindered and defensive or self-protective processes will occur (Vallerand et al., 2003).

Vallerand and his colleagues have investigated the nature of the social milieus of individuals who possess different types of passion for an activity. They reported that harmonious passion is associated with better quality of coach-athlete relationships (Lafraniere et al., 2008), higher quality of interpersonal relationships, feelings of interpersonal closeness and feelings of connectedness (Phillipe et al., 2010). Conversely, obsessive passion has been associated with decreased quality of interpersonal relationships, feelings of interpersonal closeness, and feelings of connectedness (Phillipe et al., 2010).

Interestingly, the terms interpersonal closeness and connectedness also have been used as synonyms for cohesion (Carron, Hausenblas & Eys, 2005) – another construct that historically has been difficult to conceptualise and measure (Dion, 2000; Mudrack, 1989). Carron, Brawley and Widmeyer (1998) proposed that cohesion is 'a dynamic process that is reflected in the tendency for a group to stick together and remain united in the pursuit of its instrumental objectives and/or for the satisfaction of member affective needs' (p.213). They also advanced a conceptual model (and operational definition) founded on the assumption that cohesion in sport teams is comprised of four dimensions (Carron et al., 1998; Carron, Widmeyer & Brawley, 1985). These four dimensions are: *individual attraction to the group-task*; *individual attraction to the group-social*; *group integration-task*; and *group integration-social*. Their constitutive and operational definitions resulted in extensive research examining a number of correlates of cohesion which include, but are not limited to, personal factors (e.g. motivation), team factors (e.g. team norms), environmental factors (e.g. interpersonal proximity) and leadership factors (e.g. coaching style) to name a few (Carron & Eys, 2012). Theoretically, the construct of passion is a correlate of cohesion that falls under personal factors as it is a form of motivation that could predict adherence to the sport group.

The work of Vallerand and his colleagues seems unequivocal with respect to the different group dynamics relationships associated with harmonious and obsessive passion; harmonious passion enhances connectedness (cohesion, unity) and obsessive passion detracts from it. However, from the perspective of passion in the social environment of a sport team, there are unanswered questions. That is, examining the nature of the team's bond using unidimensional measures of connectedness does not provide a complete picture on how team members who possess different types of passion interrelate. That is, harmonious and obsessive passion could

have different associations with the different dimensions of task and social cohesion. Further, as was pointed out above, in the conceptual model advanced by Carron and his colleagues, it is assumed that the task and social orientations of cohesion have two foci: perceptions of the attractiveness of the group from a personal perspective (i.e. individual attractions to the group) and perceptions of the group from the perspective of individuals in the collective (i.e. group integration). Harmonious and obsessive passion could result in differing individual perspectives of attraction to the group and/or group integration.

This study was undertaken based on the following premises. The type and level of passion that athletes have for their sport would be associated with the desire to maintain team membership in order to continue to participate in the sport. This desire or passion for the sport would have implications for the group's cohesiveness and be manifested in two ways. Cohesion can differ from task oriented and social oriented functioning within the group (Carron et al., 1985). In addition, given that passion is a multidimensional construct comprised of harmonious and obsessive passion, it is probable that these different levels of passion would influence the multidimensional nature of cohesion (i.e. task and social) in different ways. That is, based on the individual's level of passion for a given activity; he/she should be driven to maintain group membership in order to continue to participate in the activity with which he/she is passionate. Inherently, this has implications for the group's cohesion.

Thus, the main purpose of the present study was to examine the relationship of harmonious and obsessive passion with perceptions of task and social cohesion in team sport athletes. A secondary purpose was to assess differences with passion and perceptions of cohesion in competitive and recreational level athletes.

In previous work, Mageau et al. (2009) found strong associations between national level athlete's obsessive passion and their identity with the activity, love for the activity, valuation of the activity, and time invested in the activity. Conversely, Phillipe et al. (2010) assessed youth athletes (13 to 17 years) who attended a recreational summer basketball camp and found those who were harmoniously passionate had more positive emotions and better quality of interpersonal relationships. In addition, Phillipe and his colleagues found those who were obsessively passionate displayed negative emotions and had decreased quality of interpersonal relationships.

Thus, our overall hypothesis was that passion would be related to both task and social cohesion. However, the nature of the relationships was expected to differ based on the type of passion. Firstly, harmonious passion would have a positive relationship with both manifestations of task and social cohesion whereas obsessive passion would have a negative relationship with both manifestations of social cohesion, but a positive relationship with both manifestations of task cohesion. Finally, it was hypothesised that competitive athletes would demonstrate more passion and hold higher perceptions of cohesion than recreational athletes. It was felt that athletes competing at a competitive level would be more likely to: (a) be more invested in the sport (i.e. more passionate); (b) have dedicated more time to practices and games; and (c) have the same goals and objectives as teammates. Thus, competitive athletes would more likely be obsessively passionate and come together to perform at a high level to achieve team goals (i.e. higher cohesion). For athletes competing at a recreational level, sport would not hold the same pre-eminence. Obsessively passionate recreational athletes may cause feelings of uneasiness or discomfort amongst other teammates who do not share the same passion (i.e. lower cohesion), whereas harmoniously passionate recreational athletes would share similar objectives and motives for participating in sport with their teammates.

Method

Participants

Participants were 370 kinesiology students from a major university in south-western Ontario (*N*=260 female, *N*=110 male) who participated in a variety of relatively more competitive (*N*=252) versus recreational (*N*=118) sports. Competitive athletes were defined as athletes participating on a team at a level higher than 'house league.' House league is typically a recreational-based sport environment where fun and participation are emphasised. In the present study, competitive level athletes refer to those who went through some sort of a team selection process (e.g. try-outs, cuts) in order to represent that particular team. The sample of participants was selected for a number of reasons. First, it was felt that this sample was heterogeneous enough to draw from a wide variety of sports from various competition levels thereby permitting greater generalisability in the results. Second, it was felt that students pursuing studies in kinesiology would already have some underlying passion for sport, motivating their educational path.

The mean age of the participants was 20.20 (*SD*=1.50). They reported an average tenure of 3.33 years on their team with an overall average experience of 9.50 years in their sport. In terms of team status, 305 (82 per cent) identified themselves as starters while 65 (18 per cent) said they were non-starters. In addition, 180 (49 per cent) identified themselves as being some type of leader on the team (*N*=105, 29 per cent formal leaders such as captain or co-captain; *N*=75, 20 per cent informal leaders). The remaining 190 (51 per cent) identified themselves as non-leaders.

Measures

Passion. Passion was assessed using the Passion Scale (Vallerand et al., 2003). It is a 14-item inventory which assesses two dimensions of passion; harmonious passion (seven items; e.g. 'This sport is in harmony with other activities in my life') and obsessive passion (seven items; e.g. 'I have a tough time controlling my need to play this sport'). Responses are provided on a seven-point Likert-type scale anchored at the extremes by 1 *(do not agree at all)* and 7 *(completely agree)*. Thus, higher scores reflect stronger passion. This measure has been shown to be psychometrically sound, demonstrating good reliability and validity in a number of studies (e.g. Vallerand et al., 2003; Phillipe et al., 2010).

Cohesion. Cohesion was assessed using the Group Environment Questionnaire (GEQ; Carron et al., 1985). The GEQ is an 18-item measure that assesses four dimensions of cohesion: *individual attraction to the group-task* (ATG-T; four items; e.g. 'This team gives me enough opportunities to improve my own personal performance'), *individual attraction to the group-social* (ATG-S; five items; e.g. 'Some of my best friends are on this team'), *group integration-task* (GI-T; five items; e.g. 'Our team is united in trying to reach our performance goals'), and *group integration-social* (GI-S; four items; e.g. 'Our team would like to spend time together in the off season'). This measure has also been shown to be psychometrically sound and reliable (Dion, 2000). Several studies have demonstrated good instrument reliability and validity (e.g. Eys et al., 2007). Although the original GEQ contains positively and negatively worded items, a more recent version advanced by Eys et al. (2007) that only contains positively worded items was specifically utilised for this study in order to enhance participant understanding of item wording.

Procedure

After obtaining ethical approval from a university research ethics board, undergraduate class instructors in kinesiology were contacted to obtain permission to recruit participants from their classes. Once approval was granted from the instructors, a time was agreed upon when the lead researcher could address the class to request participation in the study. At that time, the first and second author distributed the letter of information describing the study. Those who opted to

participate were administered the Passion Scale (Vallerand et al., 2003) and the GEQ (Carron et al., 1985; Eys et al., 2007). To counter potential order effects, questionnaires were counterbalanced at random when administered to participants. Upon completion, questionnaires were returned to the lead researcher and participants were thanked for their time. Prior to carrying out any analyses, data were screened and cleaned (Tabachnick & Fidell, 2007) using the series mean method to replace missing values. No cases were deleted from the data set as missing values were less than 10 per cent for each case.

Results

Descriptive statistics

Descriptive statistics, internal consistency scores, and bivariate correlations are reported in Tables 1 and 2.

Population-based differences

A one way MANOVA was conducted to assess group differences between the levels of all of the passion and cohesion variables among the competitive and recreational level athletes. The MANOVA found a significant multivariate effect for competitive level, Pillai's Trace=.98, $F(6,363)=3401.85$, $p<.01$, $\eta^2=.98$ suggesting that overall, competitive level athletes demonstrated stronger percep-

Table 1: Descriptive Statistics: Means, Standard Deviations, and Cronbach Alphas.

Variable	*Mean*	*SD*	α
Total Sample (*N*=370)			
1. Harmonious Passion	5.75	0.79	.83
2. Obsessive Passion	3.94	1.50	.94
3. Individual Attraction to the Group-Task	7.15	1.20	.73
4. Individual Attraction to the Group-Social	6.77	1.55	.80
5. Group Integration-Task	6.70	1.32	.88
6. Group Integration-Social	5.85	1.81	.90
Competitive Sample (*N*=252)			
1. Harmonious Passion	5.84	0.77	.83
2. Obsessive Passion	4.20	1.45	.93
3. Individual Attraction to the Group-Task	7.26	1.21	.73
4. Individual Attraction to the Group-Social	7.08	1.46	.79
5. Group Integration-Task	6.75	1.32	.87
6. Group Integration-Social	6.16	1.75	.91
Recreational Sample (*N*=118)			
1. Harmonious Passion	5.53	0.78	.81
2. Obsessive Passion	3.41	1.48	.93
3. Individual Attraction to the Group-Task	6.91	1.15	.72
4. Individual Attraction to the Group-Social	6.10	1.55	.79
5. Group Integration-Task	6.55	1.34	.85
6. Group Integration-Social	5.19	1.77	.87

Note: [a] Scores for the passion dimensions can range from 1 to 7. [b] Scores for the cohesion dimensions can range from 1 to 9. [c] For all scales, higher scores reflect higher perceptions of the construct.

Table 2: Bivariate Correlations for Competitive and Recreational Sample.

Measure	*Harmonious*	*Obsessive*	*ATG-T*	*ATG-S*	*GI-T*	*GI-S*
Harmonious	–	.61**	.54**	.48**	.56**	.32**
Obsessive	.57**	–	.28**	.37**	.31**	.29**
ATG-T	.49**	.19*	–	.57**	.76**	.48**
ATG-S	.39**	.26**	.48**	–	.64**	.79**
GI-T	.33**	.06	.67**	.56**	–	.62**
GI-S	.32**	.17*	.46**	.72**	.67**	–

Note: Intercorelations for competitive athletes are presented above the diagonal (*N*=252). Intercorrelations for recreational athletes are presented below the diagonal (*N*=118). ATG-T=Attraction to Group-Task; ATG-S=Attraction to Group-Social; GI-T=Group Integration-Task; GI-S=Group Integration-Social. **p<.01; *p<.05.

tions of passion and cohesion. Follow-up ANOVAS indicated that competitive athletes demonstrated significantly greater harmonious ($F_{1,368}$=12.45, p<.01, η^2=.03), and obsessive passion ($F_{1,368}$=22.36, p<.01, η^2=.06) than recreational athletes. In addition, competitive athletes reported significantly higher perceptions of cohesion for individual attraction to the group-task ($F_{1,368}$=6.53, p<.01, η^2=.02), individual attraction to the group-social ($F_{1,368}$=34.71, p<.01, η^2=.09), and group integration-social ($F_{1,368}$=24.46, p<.01, η^2=.06). The only cohesion dimension where competitive and recreational athletes did not significantly differ was group-integration-task ($F_{1,368}$=1.89, p>.05, η^2=.00).

Passion-Cohesion Relationship

To determine whether various passion and cohesion dimensions shared relationships, four hierarchical multiple regression analyses were undertaken. For these analyses (carried out with the total sample of participants), the four manifestations of cohesion (ATG-T, ATG-S, GI-T, GI-S) served as dependent variables. In each analysis, obsessive passion was the first independent variable entered followed by harmonious passion.

Individual attractions to the group-task (ATG-T). Obsessive passion was a significant predictor (p<.01) of ATG-T (R^2=.08, β=.29, η^2=.09). Harmonious passion was also a significant predictor and added significant variance (p<.01) to the relationship for ATG-T (R^2=.29, β=.59, η^2=.39).

Individual attractions to the group-social (ATG-S). Obsessive passion was a significant predictor (p<.01) of ATG-S (R^2=.15, β=.38, η^2=.19). Harmonious passion was also a significant predictor and added significant variance (p<.01) for ATG-S (R^2=.24, β=.39, η^2=.32).

Group integration-task (GI-T). Obsessive passion was again a significant predictor (p<.01) of GI-T (R^2=.06, β=.24, η^2=.05). Harmonious passion also added significantly to the regression (p>.01) for GI-T (R^2=.24, β=.54, η^2=.32).

Group integration-social (GI-S). Obsessive passion was also significantly related (p<.01) to GI-S (R^2=.09 β=.30, η^2=.10). Harmonious passion was also significantly related and contributed variance (p<.01) to the GI-S relationship (R^2=.13 β=.27, η^2=.15).

Overall, the first main hypothesis was partially supported. Harmonious and obsessive passion were related to task and social cohesion. On the one hand, a positive relationship between harmonious passion and task cohesion (ATG-T, GI-T) was found which supported the hypothesis. However, the relationship between obsessive passion and social cohesion (ATG-S, GI-S) was contrary to the hypothesis in that the direction of the

Table 3: Multiple Regression Analyses.

	ATG-T	*ATG-S*	*GI-T*	*GI-S*
Harmonious Passion	R^2=.29**	R^2=.24**	R^2=.24**	R^2=.13**
	β=.59	β=.39	β=.54	β=.27
	η^2=.39	η^2=.32	η^2=.32	η^2=.15
Obsessive Passion	R^2=.08**	R^2=.15**	R^2=.06**	R^2=.09**
	β=.28	β=.38	β=.24	β=.30
	η^2=.09	η^2=.19	η^2=.05	η^2=.10

**p<.01; *p<.05

relationship was positive. Complete results of the multiple regression analyses are found in Table 3.

Discussion

The main purpose of the present study was to examine the relationship of harmonious and obsessive passion to perceptions of task (ATG-T, GI-T) and social (ATG-S, GI-S) cohesion in team sport athletes. Harmonious passion was positively related to task (ATG-T, GI-T) and social (ATG-S, GI-S) cohesion, however, contrary to our hypothesis, obsessive passion was slightly positively related to task (ATG-T) and social (ATG-S, GI-S) cohesion.

Specifically, four issues can be highlighted for discussion. The first pertains to the relationship of harmonious and obsessive passion with task cohesion (ATG-T, GI-T). As was hypothesised, the relationship was positive between both types of passion and both types of task cohesion. Possibly, these results are not surprising; they speak to the importance that passionate individuals attach to the task. In their study with basketball players, Vallerand and Miquelon (2007) found that both harmonious (β=.36) and obsessive passion (β=.50) were positively related to the amount of time spent in deliberate practice, with obsessive passion being the stronger predictor. Passionate people – and perhaps especially obsessively passionate people – tend to place more importance on task related objectives and a task cohesive team – united and committed in trying to achieve the same goals and objectives – increases the likelihood that the environment will be conducive to the achievement of those objectives.

The second issue pertains to the relationship between harmonious and obsessive passion and social cohesion (ATG-S, GI-S). In support of our hypothesis, a positive relationship was found between harmonious passion and social cohesion. This finding is consistent with previous research examining the relationships between harmonious passion and various types of social relationships. For example, Lafraniere et al. (2008) found harmonious passion to be associated with better coach-athlete relationships and Phillipe et al. (2010) found harmonious passion to be related to better quality of interpersonal relationships, feelings of closeness, and feelings of connectedness.

Contrary to our hypothesis, however, a positive relationship was present with obsessive passion and social cohesion (ATG-S, GI-S). This result is also contrary to a body of research indicating that obsessive passion has a negative impact on social relationships (Lafraniere et al., 2008; Phillipe et al., 2010). One possible explanation for our results may reside in the perceptions of obsessively passionate athletes about their teams. Munroe et al. (1999) carried out a phenomenological analysis of the dominant expectations (norms) that develop in teams across four contexts; competitions, practices, social situations, and the off-season. In all four contexts, social relationship-related

expectations were among the most frequently cited including, showing respect to teammates (in competitions, practices, and social situations), providing support (in competitions), maintaining contact with teammates (in the off-season), being positive in interactions (in social situations), and being in attendance (in social situations). The team, from both a task and a social perspective is critically important if the obsessively passionate athlete is to achieve his/her goals. Close relationships with teammates both within and outside the direct competition context have a direct bearing on whether this will be the case.

A third issue pertains to the possible negative connotation that surrounds being 'obsessively passionate' about some activities. To date, given its correlates, obsessive passion has been viewed as somewhat of a negative phenomenon. This would certainly be the case in terms of activities such as gambling (e.g. Mageau et al., 2005). However, in more healthy activities and certainly in the context of competitive sport, being obsessively passionate may be important for success. For example, the finding that obsessive passion is related to increased deliberate practice (Vallerand et al., 2007), may indicate that having some obsessive characteristics about a sport is beneficial in high performance competitive athletes. As Ericsson and Smith (1991) pointed out, it takes up to 10,000 hours of deliberate practice to achieve a level of expertise in any given discipline. In addition, they suggested that the nature of true deliberate practice is inherently unpleasant, thus there may be an inherent need to be obsessive about a sport or activity to achieve expertise and performance success. Athletes who do not possess a high level of obsessive passion for their sport may not be as willing to dedicate the time required towards training (e.g. deliberate practice) as other more passionate teammates (which could lower cohesion). Dedication and commitment are necessary to compete and excel in competitive sport.

A fourth issue pertains to the finding that competitive athletes are more passionate and have higher perceptions of cohesion than do recreational athletes. One possible explanation might be associated with the focus of the recreational sport athletes' passion. The Passion Scale assesses participants' passion towards their sport. Unlike competitive athletes, recreational athletes may use sport as a means to obtain other outcomes like maintaining a healthy lifestyle. Also, by its very nature (e.g. time commitment, skill level of participants, perceptions of importance by significant others, commitment by coaches, trainers, and so on), recreation sport may be considered an inappropriate context in which to exhibit excessive high passion. Recreational athletes who exhibit greater amounts of passion than their counterparts may trigger group discomfort – a possibility supported through research (e.g. Vallerand et al., 2008). It could be surmised then, that other intrinsic motives may be at play. Perhaps strict adherence and attendance to group events may be in fulfillment of other fundamental needs, like the need to belong (Baumeister & Leary, 1995), and the recreational sport group acts as the mere agent to achieve that satisfaction. This suggests that it does not matter what the sport/activity group is, but rather that any type of group membership can act as the agent to fulfill these motives.

Results from our study may also have some practical implications for both coaches and athletes. First, high performance competitive coaches may want to assess the level of passion, drive, commitment, and willingness to engage in deliberate practice among their athletes when selecting a competitive team. In order to maintain cohesion, coaches should aim to select a team of athletes who share a similar high level of passion for the sport and are prepared to motivate each other to adhere to the norm for productivity. If one athlete is not as passionate as the rest of the athletes on the team, cohesion may suffer because that one athlete may not share the same drive and

desire to achieve the team's goals and objectives as the rest of the team. Secondly, athletes may want to examine their own level of passion for their sport and be aware that it is still important to achieve some sort of balance between their sport and their daily lives. While obsessive passion has positive implications for team cohesion, this study did not examine the effects of obsessive passion on athlete well-being, satisfaction, or burnout. These associations could be positive or negative. Future research could examine the level of passion in competitive athletes and the relationship with such outcomes as satisfaction and burnout.

In summary, the results of this study indicate that overall, competitive level athletes are more passionate and perceive their teams as more cohesive than recreational athletes. Future research should continue to examine the level of harmonious and obsessive passion in a wide variety of athletes, and continue to examine the inherent positive and negative implications that passion can have on the group environment. One final point pertains to limitations. A common limitation with this type of research is that we cannot infer causality from this research design. Future researchers may want to set up a research design in which causality can be inferred in the passion-cohesion relationship.

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